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AUTHOR Delgado, Bettina Marissa
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ABSTRACT

Depression is known as one of the most common mental disorders found in the general population. Research that attempts to look specifically at depression and how it relates to Hispanic women however, is rare in contrast to the volumes of literature on depression itself. The purpose of this paper is to acknowledge, review, and critique the literature that focuses on depression among Hispanic women. While Hispanics are the fastest growing ethnic minority group in the United States, research which pertains specifically to this group is rare. This review examined those factors that may relate to depression among Hispanic women: marital status, education, employment, social support, and immigration/acculturation. Issues of prevalence, gender, and age are also discussed. Several conclusions are made regarding future research of depression as it related to Hispanic women. In particular, mention is made of the many diversities among Hispanic women themselves which need to be addressed in this area of research. Contains 37 references. (Author/JBJ)

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FACTORS RELATED TO DEPRESSION AMONG HISPANIC WOMEN
A REVIEW OF THE LITERATURE

by

Bettina Marissa Delgado

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FACTORS RELATED TO DEPRESSION AMONG HISPANIC WOMEN: A REVIEW OF THE LITERATURE

A Doctoral Research Paper

Presented to

the Faculty of the Rosemead School of Psychology

Biola University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Psychology

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by

Bettina Marissa Delgado

May, 1995

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ABSTRACT

FACTORS RELATED TO DEPRESSION AMONG HISPANIC WOMEN:
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Bettina Marissa Delgado

The purpose of this paper is to acknowledge, review, and critique the literature that focuses on depression among Hispanic women. While Hispanics are the fastest growing ethnic minority group in the U.S., research which pertains specifically to this group is rare. This review looks at the research that most specifically addresses those factors that may relate to depression among Hispanic women. The following factors are included in this review: Marital Status, Education, Employment, Social Support, and Immigration/Acculturation. Issues of prevalence, gender, and age are also discussed. Several conclusions are made regarding future research of depression as it relates to Hispanic women. In particular, mention is made of the many diversities among Hispanic women themselves which need to be addressed in this area of research.

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FACTORS RELATING TO DEPRESSION AMONG HISPANIC WOMEN: A REVIEW OF THE LITERATURE

Introduction

Depression is known as one of the most common mental disorders found in the general population. It is also one of the areas most frequently researched. This is especially true for women and depression, as women consistently report higher rates of depressive symptoms and depressive disorders than do men in both clinical and community based studies (Amaro & Russo, 1987; Baskin, Bluestone, & Nelson, 1981; Bernstein, 1991-1992; Roberts & Roberts, 1982; Sorenson, Rutter, & Aneshensel, 1991). Research that attempts to look specifically at depression and how it relates to Hispanic women however, is painfully rare in contrast to the volumes of literature on depression itself (Baskin et al., 1981). This finding is significant in light of the fact that Hispanics are currently the fastest growing ethnic minority group in the United States. In 1985 there were 8.5 million Hispanic women in the U.S. This number is expected to increase dramatically by the year 2000. The rapid growth rate is currently attributed to a higher fertility rate among Hispanics, the overall younger age of Hispanic women as compared with other female groups, and the continuous migration from Mexico, Puerto Rico, and other parts of Latin America.

While the existing research has provided valuable information on depression and women, it is often criticized as reflecting Anglocentric and sexist biases (Amaro, Russo, & Pares-Avila, 1987). In the past, research on

depression and women typically was done by men and analyzed depression specifically among Anglo women or at most included Hispanic women in its sample. Little research has been done specifically focusing on Hispanic women (Amaro, Russo, & Johnson, 1987). Amaro and Russo (1987) contend that the gender bias that pervades mental health theory, research, and practice is mirrored in the mental health services designed to reach Hispanic populations. The lack of knowledge regarding the psychological problems of Hispanic women may result in misunderstandings or stereotypes that influence mental health research and services. Clinicians and researchers need to be aware of the psychology of Hispanic women, specifically depression, to ensure the applicability of outcome results and provide therapeutic services that are culturally sensitive and aware. Research needs to be influenced by the realities of Hispanic women today.

The purpose of this paper is to acknowledge, review and critique the literature that focuses on depression among Hispanic women. A clear sense of where the research on depression and Hispanic women is at present will bring into focus informative results and potential areas of concern, outline areas of further research, and highlight clinical implications of treatment and the provision of services. In light of the high levels of depression among women, and the current population growth of Hispanic women in this country, understanding depression among Hispanic women seems particularly relevant.

A review of this literature implies the analysis of diverse cultural factors. The different norms and values in Hispanic and Anglo cultures suggest that the mechanisms that produce psychological distress will be different in the two groups (Ross, Mirowsky, & Ulbrich, 1983). Angel and

Thoits (1987) document that culture constrains the perceptual, explanatory, and behavior options individuals have for understanding and responding to stress. The recognition of possible differences in depression among Hispanic women verses Anglo women, combined with the increase in the number of Hispanic women, has resulted in research that recognizes the reality and diversity of Hispanic women. There is increasing interest in studying depression by analyzing the characteristics of minority women, many of which have long been ignored. Specifically, variables such as marital status, employment, education, social support and situations, effects of acculturation, and sex-roles have been addressed in studies that attempt to acknowledge depression in Hispanic women. Although few studies uniquely address Hispanic women as a sample population, many include Hispanic women as significant contributors and not as an afterthought. Consequently, while not every study reviewed in this paper deals exclusively with Hispanic women, studies are included that specifically address depression and include Hispanic women as a substantive part of their sample. This paper will address methodological concerns in the research reviewed and factors related to depression in the research, followed by a review of the research outlined by factors.

Methodological Concerns

Because of the nature of research, confounds abound in the study designs, implementation, and results of the articles that will be reviewed. Some methodological problems are unavoidable. However, awareness of these problems enables a more objective understanding of research results and offers clearer directions for future research. In this section, the subject

sampling, definitions, confounds of culture, experimental designs, and instrumentation of the studies included in this paper are discussed in terms of methodological concerns.

Sampling

The research reviewed analyzes depression among Hispanic women. Problems in sampling include sampling limited by region, ethnicity, and age, and self-report/self-selection bias. The majority of the research employed samples that were collected as part of large community surveys that sampled several ethnic groups at a time, through probability sampling or random digit dialing telephone sampling. After initial contact by the researchers, subjects were mostly self-selected, choosing to respond by agreeing to fill out questionnaires or participate in interviews. Self-selection presents an obvious sample bias in that certain groups of Hispanics, including the more depressed, may select themselves out by failing to respond. It may be that the most cooperative and stable women are the ones who respond. In one study by Warren and McEachren (1985) women were individually recruited by the researchers as volunteers. This is another example of self-selection.

Most of these surveys were ethnographic studies based on localized samples from urban areas. This presents a problem in sampling because it excludes rural/regional areas and limits generalization to other populations of Hispanics. For example, the majority of studies were conducted in California with a minority of two from Texas. This excludes the Midwest and Eastern parts of the U.S. Noticeable exceptions are those studies that analyzed samples from the Hispanic Health and Nutrition Examination Survey (Hispanic HANES) which included Mexican Americans, Puerto Ricans, and Cubans (Guarnaccia, Angel, & Worobey, 1991; Moscicki, Rae,

Refier, & Locke, 1987). The Hispanic HANES provides population level data. According to Guarnaccia et al. (1991) the results of studies that use the Hispanic HANES data can thus be generalized to the larger Hispanic population.

Since most samples represent the Southwest states, Mexican Americans are largely overrepresented. However, 1985 Census Bureau demographics (Amaro & Russo, 1987) describe Hispanics on the U.S. mainland as being 61% Mexican, 15% Puerto Rican, 6% Cuban, and 18% Central/South American and Spanish. Given the historical, political, immigration/migration, and resulting cultural distinctiveness of these groups, these demographics illustrate the importance of representation of all Hispanic subgroups when addressing the Hispanic population. These demographics also illustrate the difficulty of obtaining equal representation due to the large percentage differences. Since they represent the largest subgroup, Mexican Americans provide larger sample sizes that are easier to study statistically.

Most of the research measured ethnic identity by self-report. Subjects were asked to self-identify their ethnic group, to state their preferred language as Spanish or English, and/or were identified by surname. While self-report is a simple way to identify ethnicity, it also carries a subtle sample concern. The influence of acculturation cannot always be controlled in self-selection by ethnicity. That is, subjects that consider themselves more American may not identify themselves with the term Hispanic and thus exclude themselves from a sample. A study may then be biased by the exclusion of a more acculturated population. Even among different Hispanic groups, levels of acculturation must be considered (Hartzler & Franco, 1985).

For example, Mexican Americans are not a homogeneous cultural group amongst themselves, but differ according to level of acculturation and immigration status.

Identification by surname is also problematic in that it possibly excludes Hispanic women who have married non-Hispanic husbands. The underrepresentation of these women highlights the absence of an important group of Hispanics who, for example, are more likely to have "married up" in occupational and social status in marrying an Anglo man (Amaro, Russo, & Johnson, 1987).

Age was another confound of sampling. Some researchers limited their samples by age. Vega, Kolody, and Valle (1986) limited their sample to women 35 to 50 years of age. Yet Hispanic women as a population tend to be younger than other ethnic groups (median age = 26 years) (Amaro & Russo, 1987).

Women with less education and lower socioeconomic status are also overrepresented. While Hispanic women are predominantly associated with these variables, those who may be more educated or have a higher standard of living are often overlooked. Blatantly lacking are studies that address issues for middle and upper class Hispanic women.

Due to current changes in society, an increasing number of Hispanic women are now divorced, unwed mothers, or widows, These women are also largely excluded from samples. An exception is the study by Roberts and Roberts (1982) where divorced/separated, widowed, married, and never married women were included in the sample.

In conclusion, most studies tend to overrepresent Mexican Americans, the poor, and the uneducated, while underrepresenting other Hispanic

ethnic populations, the young, the single, and the educated in their samples. These factors may affect the generalizability of outcome results for all Hispanic women.

Definitions

There are two terms that are particularly relevant to the research included in this review, depression and Hispanic. These two terms are intrinsic to the nature of the studies in this paper in that they define what and who is being measured. Variations in definitions among these studies influence the meaning of outcome results, as well as any comparative influence results may have with one another.

Depression. The definition of depression among these studies is of particular importance. However, in the majority of studies a specific definition of the concept of depression is not included. Rather depression is described and therefore defined by symptomatology that for the most part is affective in nature. For example, Golding and Karno (1988) use the term depression in reference to depressive mood or affect.

The absence of a clearly stated set of depressive symptomatology leads to the lack of a cohesive descriptive definition for depression. Aneshensel, Clark, and Frerichs (1983) express concern as to whether the same concept of depression is actually being measured across studies and populations. The answer to that question carries with it implications for intragroup comparisons of depression among Hispanics, as well as intergroup comparisons between Hispanics and other ethnic groups such as Anglos.

While most of the research employs the Center for Epidemiologic Studies Depression Scale (CES-D) to measure depressive symptomatology, some studies created their own index of depressive symptoms. The use of

different measures within the research confounds the development of a clear picture of depression or depressive symptomatology among Hispanic women.

Several studies make it clear that depressive symptomatology is being assessed and not a clinical depressive disorder such as major depression or dysthymia (Aneshensel et al., 1983; Golding & Karno, 1988; Guarnaccia et al., 1991; Vega, Kolody, Valle, & Hough, 1986). This finding has both research and clinical implications. For example, when addressing the prevalence of depression by measuring depressive symptomatology, a woman may display some depressive symptomatology, while not actually being clinically depressed. Therefore, research on symptomatology provides little information on the actual diagnosis and disorder of depression among Hispanic women, which is what the mental health field tends to deal with in providing psychological services. The use of depressive symptomatology can also be misleading in terms of outcome. When rates of symptomatology are presented, they may represent a "bad day" at work or home, not an ongoing mental health problem.

Inconsistent definitions make difficult any comparisons between depression as symptomatology and depression as a mental disorder. Few answers can thus be provided to questions addressing the development and manifestation of psychiatric depression.

Only two studies included in this review address depression as specifically defined by the criteria set forth in the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) (Canino, Rubio-Stipec, Shrout, Bravo, Stolberg, & Bird, 1987; Sorenson et al., 1991). Several others do use the

Diagnostic Interview Schedule (DIS), which is based on DSM-III criteria, but not as their primary definition of depression.

Psychological distress is also a term which occurs frequently among the research in association with depression as defined by symptomatology instead of the term depression. Ross et al. (1983) define psychological distress as referring to unpleasant moods such as worry, anxiety, demoralization, hopelessness, and depression. Yet some research seems to use the term psychological distress interchangeably with depressive symptomatology (Krause & Markides, 1985; Guarnaccia et al., 1991).

As previously mentioned, most definitions of depression in the studies reviewed seem to rely heavily on the affective domain. While physical health can be related to mental health, most studies treat physical health as a separate variable. This enables correlation analyses, but also de-emphasizes physical symptomatology as possibly a part of a definition of depression. It is admittedly less complicated to de-emphasize physical symptomatology and thus control for any somatization confounds. As Angel and Guarnaccia (1989) point out, somatization bears a strong association to both depressive symptoms and depressive disorders. However, the de-emphasis of physical symptoms in a definition of depression may limit a definition of depression or inhibit the building of a bridge between depressive symptomatology and depressive disorders.

The lack of physical symptomatology is thus a concern in the definition of depression for Hispanics. Although beyond the scope of this review, recent research has begun to address issues of distress from a cultural perspective that primarily includes physical symptoms. Studies have researched distress in Hispanic women using the category of "nervios"

(Guarnaccia, DeLaCancela, & Carillo, 1989; Guarnaccia & Farias, 1988). Nervios are defined by symptoms that include headaches, trembling, heart palpitations, stomach and appetite disturbances, trouble with concentration, sleep problems, and worry. These symptoms may relate to depression. How they relate is yet to be fully understood, especially in the larger context of depression as a clinical disorder. However, the study of more explicit physical symptomatology, although under the category of "nervios," is a step in the right direction.

Hispanic. The definition of the term Hispanic carries imperative significance not only for sample inclusion in research, but in identifying cultural factors that relate to depression. Amaro and Russo (1987) define the term Hispanic as persons of Spanish origin, including Mexican, Puerto Rican, Cuban, Central or South American, and Spanish. A Hispanic person may be of any race and the term is not mitigated by country of birth.

This definition is how the term Hispanic is most generally defined. However, few of the included studies, while addressing Hispanic women, actually defined the term Hispanic. Rather, the definition and implications of the term seem to be implied. Thus, in the research on Hispanics, certain ethnic groups are overrepresented (i.e., Mexican Americans) as mentioned in the sampling section. The studies that include Cuban and Puerto Rican populations in studies on Hispanic women are the exception and still exclude other smaller groups of the Hispanic population.

Admittedly, the reality of attempting to include representatives of all Hispanic groups is overwhelming. Often the inclusion of some Hispanic groups is avoided because of the statistical problems involved with small sample sizes. Studies that use Hispanic versus nonHispanic categories to

study cross-cultural differences overlook possible Hispanic group differences (Golding & Karno, 1988). It is thus important to recognize that the generalization of existing results to all Hispanics should be made with caution. It may be that new research can begin to focus on ethnic intergroup similarities and differences among Hispanic women.

Another term which is often not defined, but typically included in questions of self-identification is the term Chicano. Subjects are often given the choice of selecting identification either as Mexican, Mexican American or Chicano. Although it is not explicitly stated, Chicanos are a sub-group of Hispanics of Mexican heritage.

Guarnaccia et al. (1991) present an understanding of the complexity of the term Hispanic. In the presentation of their research, they include a section that describes the distinct historical, political, economic, immigration/migration, social status, and racial differences among the various Hispanic groups.

Experimental Design

The experimental design of a study provides the context for understanding the implications and generalizability of study results. This section comments on the types of designs used in the research reviewed. Possible ways of strengthening these designs are also discussed.

Many studies included in this review are descriptive and comparative in nature. They collect data to test a hypothesis, describe the current status of the sample and compare the different interactions among demographic variables. In this review, the research employs primarily correlational and cross-sectional designs.

Cross-sectional designs offer information and data that are typically obtained at one point in time. Cross-sectional designs can analyze how factors covary, and are limited in assessing multi-directional casual paths of factors related to depression. That is, while a factor may be significantly related to depressive symptomatology at the time of the study, there is no way of knowing if a prior depressive outlook is actually altering the subject's perspective of that factor. At this point, the data can only suggest unidirectional relationships between factors and depression. Since assessment occurs at one point in time, there is no assessment of prior levels of depression, or predictive information regarding future depression, or data related to the additive effects of multiple factors over time. So cross-sectional designs cannot provide cause and effect information about a relationship.

Many of the studies were also retrospective in nature. The data analyzed had been collected up to seven years earlier. Therefore, it is impossible to know if the results are dated or still remain representative of the Hispanic population.

Longitudinal studies would provide data regarding the effects of depression over a long period of time, allowing for the study of fluctuations of depression within a given sample. Assessing only current levels of depression excludes information of prior history of depression, or the possibility of predictive information. Longitudinal studies however, are seldom pursued because they are expensive and attrition is a problem.

Roberts and Roberts (1982) also suggest the future use of panel studies to disentangle the effects of causal factors possibly relating to depression. They also suggest prospective research designs to measure both the direction

and magnitude of effects, and to more clearly study the relationship of variables as they affect levels of depression.

Instrumentation

The research included in this review relied heavily on the use of surveys and questionnaires. While this is a quick and easy way to gather information from large sample groups, the use of such instrumentation can be biased because of subject self-reporting. When assessing a cultural group, this bias has the potential to be even more pronounced. For example, subjects may attribute different meanings to questions or be dishonest to avoid being embarrassed. Many of the studies also used self-selected samples which compounds problems of self-reporting. For instance, levels of depression may be misleading, if all truly depressed subject, self-selected themselves out of a study.

Several different item scales were used to measure depressive affect or symptomatology. Most studies used the CES-D. Others created their own item scales, while others used already existing instruments such as the Langner 22-item scale of depression. While each of these scales may be reliable, their use limits the comparativeness of research results. Research of depression among Hispanics could greatly benefit from the collective use of a standardized measure upon which everyone could agree.

As previously mentioned, the CES-D is the instrument most commonly used to measure depressive affect in the studies reviewed in this paper. While the CES-D has many strengths in that it is easy to administer and appears to reliably measure depressive affect in both Spanish and English, it may also have some drawbacks. In addressing the issue of the reliability of the CES-D across ethnic groups, no systematic bias associated

with Mexican ethnicity has been found (Angel & Thoits, 1987). Yet, many of these studies are based on small samples. When compared to other measures of depressive affect, such as the Langner 22-item scale, the CES-D tends to portray Mexican Americans as being more distressed than other groups (Angel & Guarnaccia, 1989). The Langner 22-item scale often finds Mexican Americans are less distressed.

A potential limitation of the CES-D is the assessment of depressive affect for only a one week time period. It does not address any history of depression. The CES-D is also a measure of "everyday" depressive affect and not a direct measure of clinical depression. While this presents another limitation, it is explicitly stated throughout the research.

Several of the studies included in this review also used face to face interviews. However, the interview process brings with it some confounds. While interviewers were trained to minimize variations, the subject's interaction with an interview cannot always be controlled. In a study by Riessman (cited in Vernon, Roberts, & Lee, 1982) Hispanic women varied their reports of symptoms depending on who asked the questions. More health symptoms were reported to unidentified physicians and lay interviewers, while fewer symptomatic information was given to interviewers identified as physicians.

Several of the studies used measures which were translated. Since language expression is symbolically representative of culture, translations can easily become a confound of language. Two methods of translation were used in the research included in this paper: the back-translation procedure (Roberts & Roberts, 1982) or a team translation process (Vega, Warheit, Buhl-Auth, & Meinhardt, 1984). While both methods produce reliable results, a

standardized method could provide greater comparative power. The whole issue of translation highlights the increased need for measures written directly in Spanish as the research among Hispanic populations increases, in order to ensure content validity.

The Center for Epidemiologic Studies - Depression Scale. Due to the prevalent use of the CES-D in the reviewed studies, a brief description of this scale seems warranted. The CES-D is an easily administered 20 item scale described as an epidemiologic instrument for measuring the degree of depressive affect in community samples (Guarnaccia et al., 1991). It does not provide diagnostic criterion for depression. For each item, the subject is asked "How often this past week did you..." Each response is scored from zero (less than one a day) to three (five to seven days). A total score of 60 is possible, with a higher score indicating greater or more persistent symptomatology. The accepted "caseness" cutoff score is 16. Caseness is defined as a symptom score approximating one standard deviation above the mean score of the total sample (Roberts, 1981).

Four identified subscales and their reliability estimates are as follows: depressive affect (alpha=.86); positive affect (alpha=.59); somatic and retarded activity (alpha=.75); interpersonal difficulties (alpha=.68) (Krause & Markides, 1985). The underlying factor structure for Blacks, Whites, and Hispanics was examined by Aneshensel et al. (1983) who concluded that depression was manifest as a similar set of symptoms for each of these groups.

The CES-D has been translated into Spanish. The reliability coefficients range between .85 -.90 in both Spanish and English.

Factors Related to Depression

The study of depression among Hispanic women cannot be done without taking into account the social and psychological variables that relate to depression either as precipitants or accompanying features of the disorder (Munoz, 1987). The probability that a woman will become depressed or display depressive symptoms is a function of the combination of a woman's ability to interact with and respond to the internal and external factors that surround her. Sociodemographic factors which have been related to incidence of depressive symptomatology or disorder are low social class, education, income, and minority group status (Sorenson et al., 1991).

Because of the impact of these factors on depression, the research included in this paper addresses how internal and external factors interact with depression. Among Hispanic women, these factors interact, not just with the fact that they are women, but with the fact that they are minority women. Intrinsic to the study of Hispanic women is the acknowledgment of the effects that culture has on every variable or factor associated with depression in this population. This makes the research more challenging as the Hispanic culture is constantly changing and can vary among different groups of Hispanics. Research cannot, for example, focus only on Hispanic women functioning within traditional cultural roles (Amaro & Russo, 1987). Many Hispanic women are in transition and no longer hold to traditional views.

The scope of this paper is to present literature that addresses factors which are related to depression among Hispanic women. The following factors as found in the literature will be addressed: prevalence, age, gender, marital status, education, employment, social support, and

immigration/acculturation. These appear to be the most salient factors in the literature.

The Prevalence of Depression and the Impact of Age and Gender

A basic premise reported throughout this review, is that women are generally more depressed than men. However, several researchers have specifically addressed this issue as it relates to Hispanic women, most often by comparing prevalence rates among non-Hispanic White women or by comparing rates of Hispanic women to Hispanic men.

Prevalence and Gender

The articles in this section examine the prevalence of depression among Hispanic and Anglo populations. Many prevalence studies have been done as cross-cultural comparisons of levels of depression. Since they include Hispanic women in their samples, they provide relevant information on levels of depression and provide a foundation for future research. Research on prevalence tends to analyze data with gender as a factor.

Golding and Karno (1988) looked at gender differences in depressive symptoms among Mexican Americans and non-Hispanic Whites. They hypothesized that women would experience more depression than men because women are more likely to occupy only one role, that of spouse. According to the role restriction hypothesis, to the extent that each role is a source of gratification or self-esteem, having more roles should protect against depression.

Golding and Karno (1988) examined data from two catchment areas in the Los Angeles Epidemiologic Catchment Area (LA-ECA) study. One adult subject was selected from each household using a modified Kish procedure. Subjects were interviewed and given questionnaires in either Spanish or English. Mexican Americans born in the U.S. (n=538), Mexican Americans born in Mexico (n=706), and non-Hispanic Whites born in the U.S. (n=1149) were included in the sample.

The CES-D was used to measure depressive symptomatology. Other questionnaires were used to measure demographic and cultural role variables, strains, and social support, so these could be controlled in statistical analyses. Employing regression analyses, Golding and Karno (1988) found a tendency for women to have higher mean depressive symptom scores than men. However only among U.S. born Mexican American women was the difference significant (p<.05). These mean depression scores were controlled for the role variables previously mentioned, one variable at a time. Interestingly, when marital status was controlled, no gender differences were found among any group. Similarly, when household strain, marital support, age, income, and acculturation were controlled, no gender differences were found. Employment status, when controlled, also showed no gender differences except among U.S. born Mexican American women, for whom being employed was associated with significantly (p<.05) lower depression scores.

Overall, the researchers felt that the general lack of gender differences in depression, when role variables were controlled, supports their hypothesis that role restriction and role-related stress affect levels of depression in women. Thus, while the data showed women having higher depression

scores, these differences were possibly attributable to employment status, household strain, and marital support. These findings emphasize the need for further research assessing the direct effects of each of these variables.

The initial finding that only U.S. born Mexican American women had significantly higher depression scores (before variables were controlled), than the other two groups of women, was explained by the researchers as possibly the result of a "cultural conflict." The contrast between traditional Hispanic values of sex-roles for women and the current changes in American women's roles may be more of a conflict for women who have origins in one culture, but were raised in another (Golding & Karno, 1988). Thus, U.S. born Mexican American women may be more affected by role variables. This possibility highlights the importance of distinguishing immigrants from U.S. born citizens.

Moscicki et al. (1987) analyzed data from the Hispanic Health and Nutrition Examination Survey (Hispanic HANES) to assess prevalence rates of depressive symptomatology and major depressive disorder among Mexican Americans, Cuban Americans, and Puerto Ricans. The Hispanic HANES was conducted by the National Center for Health Statistics to obtain information on Spanish-speaking Americans. The survey consisted of Mexican Americans (n=7,462) from five Southwestern states; Puerto Ricans (n=2,834) from the New York area; and Cubans (n=1,357) from Miami, Florida. Ethnicity was based on self-identification. Three separate surveys were conducted between 1982 and 1984. Each survey consisted of a personal health interview, a medical history and physical examination, and questions about psychological status derived through self-administration of the CES-D

and the DIS. A scale of acculturation was administered only to Mexican Americans.

While the Hispanic HANES included children, the data analyzed for depression by Moscicki et al. (1987) included only those of ages 20 to 74. Women made up 49.5% of the Mexican American sample (n= 3555), while 55.2% of the Cuban American sample (n=902) were women, as were 61.2% of the Puerto Ricans (n=1343). For the purpose of comparisons, weighted prevalence estimates were made for each group and standardized to the Mexican American population.

Not surprisingly, for all groups, CES-D rates for women were significantly higher ($p<.01$) than rates for men. Puerto Ricans had the highest overall rates ($p<.01$). The prevalence estimates for caseness based on the CES-D for Mexican Americans was 13.2%, for Cuban Americans, 10.2%, and for Puerto Ricans, 27.7%.

In assessing major depression, Puerto Ricans again had the highest estimates ($p<.01$). While Mexican American estimates were not as high, being female was significantly related to major depression for Mexican American women. The six-month prevalence rates for major depressive episode for Mexican Americans was 2.3%, for Cuban Americans, 2.2%, and for Puerto Ricans, 5.8%. The distinct differences found in the Puerto Rican population indicates a need for more research focusing on this population. While Golding and Karno (1988) more aptly represented Mexican Americans by dividing subjects by place of birth, many other Hispanic ethnic groups need to be addressed with the same thoughtfulness. The following study is an example of a step in this direction.

Canino et al. (1987) used the DIS to investigate prevalence rates and sex differences in rates of depressive disorders and symptomatology among men (n= 675) and women (n=876) in Puerto Rico (N=1551). The researchers hypothesized social causes, based on sex roles and societal expectations, as the explanation for expected gender differences in the prevalence of depression. Thus, the researchers hypothesized that being a women will be more stressful due to sex-role expectations and society's tendency to de-value women's roles. It was assumed that sex-role expectations would be particularly high for Puerto Ricans who live in Puerto Rico, as marked sex-role differentiation in cultural expectations still strongly prevails.

Marital status and employment were studied as specific social role variables, while age, education, area of residence, and health status were controlled variables. Multiple regression analysis was used to estimate the percentage of variance that could be accounted for by these explanatory variables. Variables were then entered in blocks in a hierarchical order to determine their effects on depression. The focus of the analysis was to determine the importance of sex as a predictor of depression, after accounting for the aforementioned variables.

Canino et al. (1987) found that women met the criteria for depressive disorders twice as often as men (10.7% vs. 4.9%; $p<.01$). That is, lifetime depressive symptoms (subject has met criteria for disorder up to the date of assessment using retrospectively obtained data) were more frequent among women and were significantly associated with sex as a variable ($p<.001$).

The prevalence of dysthymia was almost four times greater for women than men (7.5% vs. 1.9%; $p<.01$). Even after the data was analyzed with employment, marital status, and health-related variables, the

significance of the sex coefficient was not lost. Canino et al. (1987) regard their results as evidence that sex was a predictor of depression in their study.

Vega, Warheit, Buhl-Auth et al. (1984) reported on the prevalence of depressive symptoms among Mexican Americans (women, n= 278; men, n=273) and Anglos (women, n=357; men, n=278) living in Santa Clara County, California in a cross-sectional field survey. Subjects were randomly selected by means of a digit dialing procedure and interviewed in either Spanish or English. The depression scale from the Florida Health Study was used to measure four dimensions: mood, affect, psychobiologic reactivity, and future outlook. Depression questions were asked in the context of the last year and scored on a continuum. For statistical purposes, Mexican Americans were subdivided into those who used English (n=330) in the interview, and those who used Spanish (n=221).

After results were analyzed by means of *t* -tests and one-way analysis of variance (ANOVA), Vega, Warheit, Buhl-Auth et al. (1984) reported that women had significantly (p=.001) higher depression scores than men, in all sample groups. Among the women, Spanish-speaking Mexican Americans had significantly (p=<.001) higher mean depression scores (μ=18.1) compared to Anglos (μ=12.4) and English-speaking Mexican Americans (μ=14.9). Overall, when interfaced with marital status and education, the Anglo and English-speaking groups had similar mean depression scores. Although their scores were always lower than those of the Spanish-speaking group, they were not always significantly lower.

Within the English-speaking Mexican American sample, being female significantly (p<.01) accounted for 8.2% of the variance in depression scale scores. Level of education and being separated accounted for another 3.7% of

the variance. Among the Spanish-speaking Mexican American sample, only 1.2% of the variance in depressive scale scores was attributable to being female ($p<.01$). In addition, 4.2% of the variance was due to being married but separated, while 0.6% was due to education.

Vega, Warheit, Buhl-Auth et al. (1984) conclude that the overall results demonstrate the impact of gender, marital status, and education on levels of depression, but explain the overall prevalence differences between the English and Spanish-speaking Mexican Americans as possibly due to different levels of acculturation and societal integration. While this conclusion is inferred from the data, the researchers contend that it provides a direction in which to pursue further research.

While the following two studies were not designed to specifically look at Hispanic women they also provide information on the prevalence of depression in this population. Roberts (1980, 1981) analyzed the prevalence of psychological distress and depressive symptoms using the same data base drawn from the adult population of Alameda County, California in 1974 and 1975. The subjects were part of on-going research by the Human Population Laboratory (HPL) and California State Department of Health Services. The entire survey sampled Anglos, Blacks, and Chicano/Mexican Americans and the results were divided into two studies numbered 11 and 12. Study 11 included Mexican American men ($n=80$) and women ($n=82$), as did study 12 (men, $n=111$; women, $n=143$). Subjects were mailed a questionnaire with instructions to fill it out. Those in study 12 were also given the option of completing the survey in Spanish or English.

While the HPL questionnaire did not specifically measure depression, a four dimensional structure of psychological well-being or the lack of well-

being was used to analyze the questionnaire in terms of positive affect, negative affect, satisfaction with life domains, and general satisfaction with one's overall existing situation. These four dimensions were used to assess psychological distress (Roberts, 1980), while a set of 40 items ostensibly relating to depression were selected from questionnaire items to measure depressive symptomatology (Roberts, 1981). The 40 items selected dealt with eating, sleeping, trouble with concentration, and psychomotor retardation or agitation. The items were then rated by 10 clinicians as to their relevance in assessing depression. Half the items were thus deleted, with the remaining 20 showing satisfactory internal consistency (alpha ranging from .74 to .80).

The process through which this measure was constructed is included here in some depth to illustrate the complexity of designing a measure and also to highlight the need for standardized measures in doing research among Hispanics. In this way, data results are more easily compared.

To examine the prevalence of psychological distress, Roberts (1980) used a form of binary regression analysis (a multiple classification covariance analysis) to adjust the following percentages for the effects of age, sex, education, income, marital status, and physical health. For studies 11 and 12 respectively the adjusted percentages were: leisure dissatisfaction, 8.7%, 20.4%; marital dissatisfaction, 6.6%, 8.7%; job dissatisfaction, 11.8%, 13.7%; chronic nervous trouble, 8.7%. 14.0%; emotional or mental illness, 1.7%, 1.7%; unhappiness, 13.7%, 22.6%; low positive affect, 31.3%, 42.6%; high negative affect, 50.2%, 50.0%. Interestingly, when the overall prevalence percentages were compared to the other ethnic groups (Anglos and Blacks), Chicano percentages were at least as high and in some respects higher, although none of the comparisons were significant. Roberts (1980)

recognizes the limitations of analyzing data from a source that did not initially attempt to measure distress or depression.

In regard to depressive symptomatology, Roberts (1981) found adjusted mean depression scores of 12.99 in study 11 (20.21%) and 14.40 in study 12 (18.13%). These scores were higher than the Anglo scores to which they were compared. More Mexican Americans were classified as "depressed" in both samples ($p<.001$ in study 11 and $p<.05$ in study 12, adjusted scores). These results corroborate other research that finds Mexican Americans have higher rates of depressive symptomatology. However, Roberts points out that any level of depressive symptomatology does not indicate to what extent Mexican Americans are clinically depressed. This then becomes an issue of what it is studies are actually trying to measure. While information regarding the prevalence of depressive symptomatology are helpful, information regarding disorders may be more helpful for mental health service purposes.

The research on prevalence of depressive symptoms among Hispanic women seems to concur with the research on women in general, that women demonstrate higher levels of depressive symptomatology. While higher rates were found to be related to other factors such as education and employment status, gender is a significant factor in relation to depression. This was found to be particularly true for Puerto Rican women.

Age

Age, as it relates to depression, has not been specifically addressed in any study. While age tends to appear as a variable that is controlled for in the research on depression, it is not the primary focus. One exception is the study by Sorenson et al. (1991) where age of onset of depression is the

primary focus. The following brief section includes research that while not all specifically focused on age, found relevant results that did relate to age.

In terms of age, Canino et al. (1987) found young (17-24 years of age) Puerto Rican women tend to have fewer symptoms ($p<.05$) than 35 to 49 year older Puerto Rican women. Other age intervals seem to have a nonlinear association with depressive symptoms. That is, older women (55-64 years of age) also report fewer symptoms, but the difference is not significant.

In their study on prevalence, Vega, Warheit, Buhl-Auth et al. (1984) found that those under 30 years of age had significantly ($p=.05$) higher depression scores. These authors contend that these findings are inconsistent with other research that usually find higher scores among older populations. They regard their findings as support for the need to more directly assess age and depression.

Sorenson et al. (1991) studied age of onset of major depressive disorders. Age of onset in depression was seen as a factor in its own right because it may be related to the presence of other mental disorders, or be associated with the severity or course of disorder. In this study, depression was measured by the DIS and diagnosed according to DSM-III diagnosis.

Data was collected as part of the LA-ECA project. Subjects were interviewed and any history of depressive disorders was based on self-report. The study sampled both men and women ($N=1,650$). Of the total sample, 46.6% were Hispanic, and 95% of these were of Mexican origin or descent.

Survival analysis was used to assess the probability of the onset of major depression as a function of time. Group differences in survival are assessed for gender, ethnicity, and lifetime history of dysthymia. Results indicated that of those who met the criteria for major depressive disorder,

women reported longer episodes (median 16 weeks). U.S. born Mexican Americans reported more (median 4) and longer depressive episodes (20 weeks) than did U.S. born non-Hispanic Whites (3 episodes, 12 weeks) or Mexico-born Mexican Americans (3 episodes, 8 weeks). Sorenson et al. (1991) also found that Mexican Americans born in Mexico reported a later onset than those born in the U.S.

The research relating to age seems inconclusive at this point, with some reporting higher rates of depression among younger populations and others finding higher rates among older populations. Information regarding the age of onset is still minimal, yet further research in this area may be helpful in areas of prevention and treatment.

Marital Status and Depression

Marital status is probably the most common factor addressed in studies on women and depression. The importance of marital status among Hispanics has been viewed as particularly important because of the traditional roles and values that often characterize Hispanic families. Marriage and family are seen as essentially built into the cultural structure.

Although the ideal of family and extended family still exists among Hispanics, recently there have been dramatic changes in family composition. As a result of many factors that are beyond the scope of this paper, the concepts and structure of the traditional marriage and family have become more disorganized, often disintegrating. There has been a sharp rise in divorce and female-headed households. Most research on marital status in general populations has consistently found married people to display relatively low levels of mental health problems (Markides & Farrell, 1985).

The current changes in Hispanic culture make potential implications for depression as related to marital status seem obvious. Thus, the research presented here provides not only a backdrop of information regarding the effects of marital status, but outlines the probable future direction of research given the changing Hispanic family structure.

Guarnaccia et al. (1991) analyzed the impact of marital status and employment on depressive affect. Conceptually, they assumed that both marital status and employment would act as buffers against psychological distress in varying degrees depending on the exact interaction between these two variables. Thus adults in a female-headed household should experience more depressive affect than those living in couple-headed households due to monetary pressures and less social support.

Guarnaccia et al. (1991) used data from the Hispanic HANES. However, as the CES-D was administered only to adults, and generally only adults have families and are working, the sample was limited to those 20 to 45 years of age. While the study sampled both men and women, only the data on women are presented here. Therefore, for this study the sample included Mexican American women (n=1,583), Cuban American women (n=312), and Puerto Rican women (n=659). To account for any unknown group differences, parallel analyses were performed for each group separately. Family income, education, and household size were controlled variables as any of these might also affect levels of depression.

Demographics show Cuban Americans to have the highest levels of education, employment, and income. Puerto Ricans were the most socioeconomically disadvantaged, but shared similar levels of educational status. Puerto Ricans were also in the worst physical health.

The results of the CES-D indicated that women have higher scores than men in all three groups. However, Cuban women reported low levels of depressive affect and Puerto Ricans the highest levels. Unmarried women also tended to report higher level of depression than did marrieds. This was significant ($p<.01$) for both Mexican American and Puerto Rican unmarried women, although it was unmarried Puerto Rican females who were nearly at the 16 point cutoff to indicate potential clinical depression (CES-D score = 15.5).

Guarnaccia et al. (1991) examined the association and interaction between marital status and employment using a multivariate framework (all control variables were entered into an ordinary least squares regression equation). The unadjusted means showed unmarried women (with the exception of Cuban American women) to have higher depressive affect scores than married women.

Comparing the unadjusted interactions between marital status and employment revealed that those who were both unemployed and unmarried had substantially poorer mental health than those who were employed and married. When these scores were adjusted (using a least squares adjustment procedure) to control for other variables, employment made no difference for unmarried women, even though unmarried women still had higher levels of depressed scores.

Being a married woman and employed resulted in significantly ($p<.01$ for Mexican Americans and Cubans; $p<.10$ for Puerto Ricans) lower depression scores than women who were married and unemployed. Thus, employment may carry a different impact depending on whether or not a woman is married. Overall, Puerto Rican women seemed to display higher

levels of depressive affect. Although there were different levels of affect for each group, the association between marital status, employment, and CES-D scores were structurally similar for all three groups.

Moscicki et al. (1987) also used data from the Hispanic HANES to examine depression among Mexican Americans, Cubans, and Puerto Ricans. In their analyses they found some results related to marital status. To begin with, they also found CES-D rates were higher for women than for men, with no difference in age groups. However, in terms of marital status, those who were married had the lowest unstandardized, weighted CES-D caseness ($p<.01$) rates, while those who were either married with the spouse not living in the home, widowed, divorced, or separated had the highest rates. These results are similar to those found by Guarnaccia et al. (1991), although Moscicki et al. (1987) included a broader sample of those without a spouse.

Mexican Americans who were divorced, separated, and never married had significantly higher caseness rates (19.3; 24.8; 17.9; respectively)($p<.01$). Cuban Americans who were widowed also had high rates (33.0)($p<.01$) which differed significantly from married Cubans. For Puerto Ricans, all non-married categories had significantly higher rates as compared to those who were married.

Moscicki et al. (1987) also analyzed the DIS according to weighted prevalence scores of six-month diagnosis of major depression. Here Puerto Ricans also had the highest estimates in all categories. Being divorced or separated (11.3 and 11.9) ($p<.01$), having a household income below $5,000, and being unemployed were all significantly associated with six-month prevalence of major depression. Although there were differences between Mexican Americans, Puerto Ricans, and Cubans, Puerto Ricans seemed to

have overall higher levels of depressive symptomatology and major depression.

Markides and Farrell (1985) gathered data from three generations of Mexican Americans in the San Antonio, Texas metropolitan area in 1981 and 1982, to examine how marriage is associated with levels of depression at three different stages of the life-cycle. As Mexican Americans are traditionally thought to have strong family orientations, marital relationships ought to carry particular importance. Thus, assuming the importance of marriage, the protective benefits of marriage were examined compared to widowhood, divorce, and separation, rather than to those who had never been married. Also, since gender is significantly associated with depression, men and women were analyzed with gender as a factor.

Markides and Farrell (1985) sampled 375 three-generation families (N=1125). Each generation consisted of 375 subjects with the older generation having a median age of 74 years, the middle generation, 49 years, and the younger generation, 26 years. Two-thirds of the entire sample were women. The researchers realized that to use only families with three-generations put some restrictions on the sample. Mexican American families who may be less traditional (family members are not in contact with one another or do not live in the same area) were potentially excluded from the sample.

Depression, as measured by the CES-D, was considered the dependent variable in this analyses. The key independent variable was marital status. The relationship between marital status and depression was examined for each generation independently, with the effects of age, education, income, and health held constant. An analysis of covariance was used to compare

depression in married and unmarried (widowed, divorce, or separated) subjects.

In comparing all marrieds to non-marrieds, results indicated that marital status had a significant effect on depression in the middle generation group F= 14.237 (p<.01) and the younger generation F=4.100 (p<.05), but not among the older generation F=0.024 (p>.05). That is, non-married respondants in the middle and younger generations displayed more depression than married respondants. Women were consistently shown to be more depressed than men at all age levels. This difference was significant among the older F=15.846 (p<.01) and younger F=4.844 (p<.05) generations.

To further analyze the data, the first and second generation widowed were compared to those married. The researchers were surprised to find that widowed older persons were not any more depressed than married older persons. The results were different in middle age, where widowed people were significantly F=5.188 (p<.05) more depressed than those who were married.

When divorced and separated people were compared to those married, divorced and separated people had higher depression scores. However, the rates were only significant in the middle generation F=11.739 (p<.01). Thus being separated/divorced did not significantly affect the older or younger generations. Also, no significant sex by marital status interactions effects were observed. That is, there were no significant differences in depression scores for men or women whether married or separated/divorced.

Overall, Markides and Farrell (1985) concluded that being married resulted in lower depression scores for middle-aged and younger persons.

However, marital status did not seem to make a difference in older age. This suggests that widowhood, divorce, or separation may not be detrimental to the mental health of older people as had been expected. The researchers hypothesized this may be due to the support engendered in strong extended family ties. How true this actually is in an urban-industrial society remains to be determined. It may also be that changes in marital status are expected at an older age. This may account for the greater detrimental effect widowhood had on those of middle age, a time when such a change is not expected.

The minimal effects of divorce, seen in the younger generation may also be due to societal changes. The rising divorce rate may make divorce or separation more acceptable among the younger generation than among the middle aged for whom divorce and separation were significant. These results indicate that marriage does matter, but only for the middle and younger generations. Yet the different effects found among each generation indicate that stereotypical notions about Mexican American families cannot always be maintained.

In a comparison study between Mexican and Anglo women, Ross et al. (1983) argued that women whose roles are least traditional are least distressed, according to role-stress theory. Thus, married women who were employed, did not have children at home, or did not have primary responsibility for housework, were expected to be less distressed than married women who stayed at home, had children, and did household chores. It was hypothesized that working outside the home would decrease psychological distress for Anglo women, but have less of an effect for Mexican women. Marital satisfaction was also hypothesized to have an effect on psychological distress, with Mexican women depending less on the

quality of their marriages for well-being than Anglos, due to extended family support.

A survey questionnaire administered in face-to-face interviews (in Spanish and English) were used to collect data in El Paso, Texas and Juarez, Mexico, in 1975. Only married respondants were included in the sample (N=326). Other variables included sex, Mexican ethnic identity, family roles, wife's employment status, children, marital satisfaction, education, occupational prestige, and income. The possibility of a socially desirable response style was controlled. Psychological distress was measured using eight items of the Langner Index. The alpha reliability of this index for Anglos was .79 and .75 for Mexicans.

Descriptive data indicated that most married women, both Anglo and Mexican, occupied traditional roles (70% were not employed, 96% occupied traditional housework roles, 96% occupied traditional cooking roles). Since only 4% of the women occupied nontraditional roles, the lack of variance in family roles eliminated this as a variable.

A regression analysis was performed to measure two and three way interactions. The first analysis demonstrated that those who were satisfied with their marriages and had higher incomes were less psychologically distressed ($p<.05$). Also, when a married woman was employed, psychological distress was lower for both spouses. Occupational prestige, education, and number of children did not have any significant direct effects on psychological distress.

To examine indirect effects on psychological distress, a causal model was developed in which marital satisfaction and employment status were seen as possible intervening mechanisms. Any variable that was not

significant ($p<.05$) was deleted from the model. Results indicated that education and the employment of a married woman affected marital satisfaction. If a woman was employed, both spouses were less satisfied with their marriage than when a woman did not work ($\beta=-.15$). This finding is different from the effects of a married woman's employment on distress. However, while employment may decrease distress directly, it increases distress indirectly by decreasing marital satisfaction

In conclusion, married women of both cultures were found to have higher levels of psychological distress than married men. Women who are employed were also less psychologically distressed than housewives in both cultures. Unlike the original hypothesis however, marital satisfaction had a large effect on psychological well-being for women in both cultures. The presence of children had no detrimental effects for either culture as well.

Vega, Kolody, and Valle (1986) researched the relationship of marital status, confidant support, and depression (using the CES-D) among Mexican immigrant women. Although their study is explored in more detail in the section on social support, some of their findings regarding marital status and depression will be mentioned here. These authors sampled an immigrant population ($N=1,915$) from San Diego County, California. In their analyses of sociodemographic variables, 21.8% of the women had a disrupted marital status (widowed, separated, or divorced). The researchers contend that this percentage challenges the assumptions regarding the continuity, structure, and social support within the Mexican American family. They propose that a longitudinal perspective of disrupted marital status would show even higher percentages.

When the variable of having a confidant (supportive) relationship was accounted for, those women who had disrupted marital relationships also had higher levels of depression ($p<.01$) than women who were married. However, never-married status was associated with the lowest levels of depression ($p<.10$). Vega, Kolody, and Valle (1986) found marital status, income, and education to be the variables that provided the best overall predictions of depressive scores. Interestingly, they found the widowed to be the exception in those of disrupted marital status, in that they were similar in depression level to those married. Thus the disruption in their marital status had no adverse effects. This finding is similar to the results found for widows in the study by Markides and Farrell (1985), although age differences were not addressed for each category in the present study.

Marital disruption was also addressed in another study by Vega, Warheit, and Meinhardt (1984). This study compared depressive symptomatology among Anglos ($n=637$) and Mexican Americans ($n=221$, Spanish speaking; $n=330$, English speaking). The sample was obtained from a cross-sectional survey of Santa Clara County, California. Subjects were selected by means of a random digit dialing procedure, interviewed by trained interviewers, and administered a questionnaire. The interview schedule consisted of a comprehensive 122-item inventory which included five psychiatric measures. The purpose of the study was to determine whether differences exist in depressive symptoms when comparing different marital statuses specifically among Mexican Americans. It is often assumed that because of Hispanic values, marriage and family act as shields from stress. However, data is needed to support the veracity of this assumption, especially in today's changing society.

The English speaking Mexican American sample were overrepresented in the never married status (24.4%) compared to the Spanish speaking Mexican Americans and Anglos (12.2% and 18.0% respectively), and underrepresented in the widow status (2.4% vs. 8.1% and 7.6%). This seemed to be the result of this group's overall younger age.

Vega, Warheit, and Meinhardt (1984) used an analysis of variance (ANOVA) to examine both within- and between- group differences in depression scores. Within group scores for depression and marital status were significant ($p<.001$) for all three sample groups. Within each group, those who were separated had the highest scores (Anglos=18.1; English speaking Mexican American=20.1; Spanish speaking Mexican American=28.8). The lowest scores within each group were found among those who were married for both the Anglo and English speaking Mexican Americans, but the lowest scores in the Spanish speaking Mexican American group were found among the never married and divorced.

Between-group analysis found significant differences in depression scores only among those who were married ($p<.0001$), with Spanish speaking Mexican Americans having the highest scores. However, all other between score variations were not significant.

Vega, Warheit, and Meinhardt (1984) also did a multiple regression analysis to predict depression from several demographic variables (divorced, education, age, separation, female, widowed). Among the English speaking Mexican Americans, being female, separated, and of low educational status were statistically significant ($p<.01$), explaining 13.5% of the variance. Among Spanish speakers, low educational status, separated, and being female were significant ($p<.01$). Thus, women in a disrupted marital status,

with less education were more likely to exhibit high levels of depressive symptomatology. This was true for all groups.

Overall, while the English speakers were consistently less symptomatic across marital status than Spanish speakers, both groups exhibited higher levels of depressive symptomatology than Anglos. Vega, Warheit, and Meinhardt (1984) suggested a possible explanation as one of social structure, where stressors, interpersonal coping resources, and psychiatric symptoms are interwoven. Thus, a lower educational level combined with disrupted marital status would increase symptoms. The structural marginality of Mexican American families would render individual family members more vulnerable to stressors. How the support of the family structure fits into this remains to be seen, but this research supports the distress of marital disruption.

Roberts and Roberts (1982) studied sex differences in symptoms of depression among Mexican Americans, specifically the effects of marital status among a Mexican American sample drawn from two surveys conducted in Alameda County, California. Study 1 consisted of 111 men and 144 women, while Study 2 had 64 men and 92 women. Two different measures of depressive symptomatology were used (Study 1=18 item index; Study 2=CES-D), so each group was analyzed separately. Analyses of variance were used to examine the data.

Marital status as a variable (whether married, divorced/separated, never married, or widowed), was found to have a significant effect ($p<.05$) on depression scores in Study 1, with marrieds showing lower levels of depressive symptomatology, but not in Study 2. Among the specific marital statuses, Mexican American women in the divorced/separated category had

higher depressive scores than all other marital statuses, but none of the interactions of gender with marital status were significant.

Roberts and Roberts (1982) further analyzed marital status and depression scores with sex, depression by age, education, and income variables. However, this analysis was computed only for those who were married. None of these variables had a significant effect on levels of depression. Depression was also analyzed with employment status for those who were currently married. Employment did have a significant effect for married women ($p<.05$ in Study 1; $p<.01$ in Study 2), with women who were both married and employed demonstrating lower levels of depression.

Roberts and Roberts (1982) concluded that although marital status was not significant in Study 2, the trend in the scores shows women following the general pattern of marrieds having lower levels of depressive symptomatology. However, the researchers were surprised that lower levels were also experienced by widows in Study 1 (mean scores for widowed, married, and never married showed little variation). While this data on widows corroborates other studies presented in this review, Roberts and Roberts (1982) dismiss the findings as inconclusive as there were only six widows in Study 1.

While there are many variances among the different subgroups sampled, the research seems to indicate that marital status does make a difference in levels of depressive symptomatology. Married women tend to have lower levels of depression, although married women have higher levels of depression than married men. Marital disruption was also shown to relate to higher levels of depression in all groups.

Education and Depression

Education is an important factor that has been described as a significant preventative against depression. However, few studies actually address levels of education in Hispanic women. Even fewer do so in the context of depression. While none of the research included in this review specifically addressed education as a primary factor, many did control for possible effects of education, viewing these effects as possible confounds in their research (Canino et al., 1987; Guarnaccia et al., 1991; Krause & Markides, 1985).

Nonetheless, while the opportunity to specifically analyze the interaction between Hispanic women, depression, and education remains, other ethnic research has found this avenue profitable. For example, as Warren and McEachren (1985) studied Anglo women and depression using the CES-D, the two subject groups with the lowest scores of depression consisted solely of college graduates. While their study is focused on an Anglo population, the results raise questions regarding factors which may work to prevent depression.

Vazquez-Nuttall, Romero-Garcia, and De Leon (cited in Amaro & Russo, 1987), suggested a possible link between high levels of education and high levels of cultural adaptation among Hispanic women. The effects of education and their interaction with assimilation factors carries significance given that the majority of Hispanic women are poorly educated. In 1985, the median years of education among Hispanic women 25 years of age and older was 11.5. According to the 1985 Bureau of the Census (1981), Mexican American women have the lowest education (median = 10.2 years), followed

by Puerto Rican women (11.2 years), Cuban women (12.0 years), and Central/South American women (12.4 years).

In their study on the prevalence of depressive symptoms, Vega, Warheit, Buhl-Auth et al. (1984) found educational achievement and its relationship to socioeconomic status to be the most influential factors affecting levels of depression. Their sample included Anglos and Spanish and English speaking Mexican Americans. Again, this highlights the impact of education on depression.

Vernon et al. (1982), studied response tendencies, ethnicity, and depression scores and found education to be inversely related to depressive symptom scores. Their sample was from a survey of Alameda County and consisted of Whites (n=236), Blacks (n=240), and Mexican Americans (n=166; females n=96).

It seems apparent that education is significantly related to levels of depression and may even act as a preventative factor. The study of Hispanic women with degrees in higher education could provide relevant data to this area. Given the overall low level of educational status among Hispanic women, education is also a factor to consider in providing relevant services to this population.

Employment and Depression

The number of women from every ethnic background who are entering the workforce has been on the rise in the latter part of this century. Amaro and Russo (1987) stated that nearly one of every two Hispanic women was in the labor force. This increase has resulted in attitudinal changes towards women and affected the way in which women's roles are defined.

Traditionally, Hispanic culture has placed an emphasis on women at home. However, the changing work trend and the changing Hispanic family have many implications for Hispanic women who may choose to work and thus alter more traditional roles. While some women may be able to shed traditional roles, other women may not only work, but also maintain a traditional role at home.

Economic status also relates directly to health and mental health with individuals at the lower end of the social hierarchy reporting greater incidence of psychological problems. Employed Hispanic women are disproportionately represented among low status, low paying jobs, which has repercussions for the possible effects of employment on depression. Hispanics tend to have larger families, which also implies lower mean incomes per family member (Amaro & Russo, 1987). Hispanic women also earn lower wages than Anglo women. Thus the effects of employment for Hispanic women may be different than for non-Hispanic women.

Past research on women in general has shown that employment as a factor has an interactive effect with levels of psychological distress for women. Whether this effect is positive or negative may depend on how employment specifically interacts with other factors of women's life and culture.

Guarnaccia et al. (1991) investigated the effects of marital status and employment status on depressive affect for Mexican Americans, Cuban Americans, and Puerto Ricans as previously mentioned in the section on marital status. In terms of employment status, the researchers postulated that employment would act as a buffer against psychological distress because it provided material assets and acted as an independent source of identity

and social competence. Thus employment status would interact in a positive manner (less symptomatology) regardless of marital status.

Demographic results showed Cuban American respondants to have higher levels of education, employment, and income. Puerto Ricans were the most socioeconomically disadvantaged. Significant differences ($p=<.01$) were found between women who were married and unmarried in terms of their socioeconomic level, with unmarried women having a lower level of income. When analyzed for levels of depressive symptomatology, women who were currently unemployed had higher depressive affect scores than women who were employed across all three ethnic groups, significant at the $p<.05$ and $p<.01$ levels. Women who were both unmarried and unemployed had overall lower mental health than those who were employed and married, although this interaction was not tested for significance.

To eliminate the effects of other possible factors, the CES-D scores were adjusted for household size, family income, education, age, and a physician's health assessment. Essentially the patterns of interaction remained the same, but the employment differences for unmarried women were statistically insignificant. For these women, it may be that other factors such as age, education, and income do affect depression.

Among all three ethnic groups, the association between employment, marriage, and CES-D scores appeared structurally similar as evidenced in the above results. It seems that marital and employment status do affect levels of depression. However, the levels of depressive symptomatology were different for each group, with Puerto Rican women displaying the highest rates of depressive affect. The inter-group differences highlight the

importance of research that discriminates ethnic groups among Hispanic women.

Krause and Markides (1985) specifically researched the interaction of employment and psychological well-being in Mexican American women (N=450). The purpose of their study was to determine the effects of both paid employment and household responsibilities on the psychological well-being of Hispanic women by exploring the levels of distress in women who either work outside the home or are full-time homemakers. Several other factors were also assessed: specifically whether a woman's sex-role beliefs mediated the relationship between paid employment and psychological well-being; whether help with household chores and childcare reduced any possible negative impact of work; and whether having young children at home effected levels of distress.

Krause and Markides (1985) used probability sampling to obtain a representative sample of Mexican American women living in the San Antonio, Texas area. The women were married (n=351) or divorced or separated (n=99) and averaged 36.3 years of age, while 50.2% were employed outside the home. Psychological well-being was determined by the lack of depressive symptomatology which was measured with the CES-D Scale. Four factors were produced from the CES-D to serve as outcome measures. The four factors and their reliability estimates are as follows: depressed affect (alpha=.86); somatic and retarded activities (alpha=.75); interpersonal difficulties (alpha=.68); positive affect (alpha=.59). Other smaller scales were used to assess help with child care, help with housework, and sex-role orientations. As psychological symptoms can be influenced by health problems, the researchers controlled for these effects by also administering a

self-rated health measure. In the analyses, age and socioeconomic status were factors that were also controlled.

Gross effects represented simple bivariate (zero-order) regression coefficients. These results indicated that married women working outside the home had significantly lower depressive affect scores (ß= -.494, p<.05), while separated or divorced women had lower interpersonal difficulties scores (ß= -.768, p<.01) and lower depressive affect scores (ß= -1.078, p<.05) than separated or divorced women who did not work out of the home. A comparison of the gross effects of work on each of the depressive symptom factors suggests that although work was beneficial to women regardless of marital status, it was of more benefit for women separated or divorced.

When these results were controlled using a series of multiple regression equations, for any confounding factors such as age, income, education, health status, or the presence of young children, the effect of work for married women was not significant, although still positive. The effects of work for separated or divorced women remained significant and strong. Overall, work still appears to have a positive effect (less depressive symptomatology) on the Mexican American women in this sample, particularly for separated or divorced women.

The effect of a series of two-way interactions were analyzed to further examine the data. In terms of sex-role beliefs and employment, married women with a traditional sex-role orientation who worked outside of the home had greater psychological stress as evidenced by lower positive affect scores (ß= -.645, interaction effect significant at .05 level). Married women who held a nontraditional orientation did not appear to be as distressed by employment, although none of the effects were statistically significant.

Traditional and nontraditional beliefs were not significant for separated or divorced subjects. Receiving help with childcare and housework was analyzed only for married women as the scales used to measure these areas assessed help as that provided by a spouse. The interaction between employment and childcare was not significant, thus employment does not appear to be more distressing for women who do not receive childcare help. The interaction between employment and housework however, was significant for women who received limited or no help. These women reported significantly higher levels of depressive symptomatology (ß=.532, interaction effect significant at .01 level) than women who did receive housework help. The difference in the effects of childcare and housework may be attributable to the expectation that childcare is more central to the role and self-identity of Mexican American women. Nevertheless, this is only speculation. More specific research is needed to more closely assess the impact of sex-role beliefs on employment.

Having young children at home was significant (ß=.322, interaction effect significant at .01 level) only among separated and divorced working women and only in interaction with the somatic and retarded activities factor. That is, separated or divorced women with young children at home were more likely to suffer from these depressive symptoms.

The research conducted by Krause and Markides (1985) demonstrated a complex interaction between factors of depression and employment for the Mexican American woman. They suggest, however, that a more predictive perspective may be to question which women find work to be psychologically beneficial, and which women find work to be a source of psychological distress. This question seems appropriate given the differences found

between married and separated or divorced women. However, this study demonstrates a bias in including only women who had been married at some point. This excludes Mexican Americans who may be single mothers who work and have never been married, or never married single women without children.

In a related study, Roberts and Roberts (1982) also researched sex differences in symptoms of depression among two separate samples of married men and women of Mexican American descent. While marital status was analyzed for its relationship to depressive symptoms, employment status was also a factor. Results showed employment had a significant effect, with the employed (both men and women) reporting fewer depressive symptoms on an 18-item depressive symptom scale ($p<.05$) and on the CES-D ($p<.01$) than the nonemployed. On the other hand, when comparing only employed married women with housewives, housewives reported significantly more depressive symptoms in one sample ($p<.001$), but not in the other. This data seems to be ambiguous, with one sample showing housewives to be more depressed and the other showing them less depressed. Results such as these open the door for further study of undetected factors which may account for such results among employed and unemployed women. Roberts and Roberts (1982) also recognized the limitations of a sample group consisting of only Mexican Americans. The inclusion of Cubans, Puerto Ricans, or other Hispanics may highlight different patterns of interaction.

Ross et al. (1983) studied distress and the traditional female role (explored more fully in the section on marital status). This study hypothesized, in part, that working outside the home (full or part-time), as

opposed to being a housewife, would decrease psychological distress for Anglo women, but have less effect on Mexican women. This assumes that employment will be more crucial to the psychological well-being of Anglo women than for Mexican women.

Of the women surveyed, 39% of the Anglo wives were employed, while only 21% of the Mexican wives were employed. This was a significant difference ($p<.001$). Results indicated that Ross et al. (1983) hypothesized incorrectly as both Anglo and Mexican women who worked were less psychologically distressed ($p<.05$) than those who were housewives, for both cultures. It was suggested that this may be due in part to an employed woman's increased power, personal economic resources, and self-esteem.

Amaro, Russo, and Johnson (1987) examined both gender and job related factors to determine their contribution to the mental health of professional women. Their study was unique in that the sample included only Hispanic professional women ($N = 303$) consisting of Mexican Americans (69.9%), Puerto Ricans (11.4%), Cubans (10%), and Hispanics of other Latin backgrounds (9%). Of this sample, 77.2% had college degrees compared to the 7.3% of Hispanic women with similar degrees in the general U.S. population, and 68% had incomes over $29,000 while in 1985 the annual median income for Hispanic women was $16,252. The majority of the sample were U.S. born (75.1%) and identified themselves as bilingual and bicultural (93.7%). It is apparent that this sample represented a select group of Hispanic women.

While Krause and Markides (1985) studied the gender related effects of employed Hispanic women (marital status, children, housework, and sex role orientation), Amaro, Russo, and Johnson (1987) also considered job

related effects (being a minority, discrimination, income and promotion opportunities) in a self-administered questionnaire. Five variables were considered: the stress of balancing the roles of partner and professional; the stress of balancing the role of parent, partner, and professional; satisfaction with personal life; satisfaction with professional life; and psychological distress symptomatology. Multiple regression analyses were conducted to investigate the association between these five variables and gender/job related factors. In terms of balancing family and professional roles, both job- and gender- related variables were significantly associated ($p<.05$) with the stress of handling several roles. The most important variable in predicting stress was the degree of stress on the job. Interestingly, women whose husbands were not Hispanic and who supported their careers, were less likely to experience stress managing multiple roles. Also, Cuban women reported less stress in balancing multiple roles when compared with Mexican American women which may indicate that cultural factors affect the variable of job stress.

Amaro, Russo, and Johnson (1987) found that satisfaction with professional life was most significantly affected ($p<.05$) by income, peer support, and having children under age six. Women who expressed more satisfaction were more likely to receive higher income, not have young children, and receive support from co-workers. Satisfaction with personal life was found to be most significantly affected ($p<.05$) by marital status, experience with discrimination, income, and having young children. Women reporting more satisfaction in this area were more likely to be married, not have young children, not have experienced discrimination, and have higher income.

Psychological distress symptoms were measured by a distress index created from the average score on 14 questionnaire items. The reliability Cronbach alpha for this index was .78 indicating satisfactory reliability. With regard to psychological distress symptoms, the most significant ($p<.05$) variables were income, job stress, peer support, experience of discrimination, ethnicity of spouse, and being from a particular Hispanic group. Women who reported less distressing symptoms were more likely to have a higher income, lower job stress, and be Mexican American rather than Puerto Rican. While psychological distress was measured by an index of distress that included feelings of both depression and anxiety, this study is included because it not only assesses a unique sub-group of Hispanic women, but it also demonstrates that a combined job and gender model effectively describes predictors of mental health among employed Hispanic women.

The findings in the study by Amaro, Russo, and Johnson (1987) also indicate the value of separate analyses for women of diverse Hispanic backgrounds. The different results in some areas for Mexican Americans, Cubans, and Puerto Ricans demonstrate different responses to life circumstances. As these similarities and differences seem to exist, they can be further identified and understood.

The value of recognizing the level and status of women's employment as it affects depression is addressed in the study by Warren and McEachren (1985). They divided their sample into the professionally employed, the nonprofessionally employed, and the unemployed. It was hypothesized that professionally employed women would report less depression than nonprofessional or nonemployed women. Such results would be due to the intrinsic and extrinsic rewards generated from

professional jobs, such as increased feelings of self-esteem and competence, which would protect one from feelings of depression. Employment status was shown to significantly influence depression scores ($p<.0001$), so that professional women were less depressed than nonprofessionals or nonemployed women. While this study did not differentiate women by ethnicity, these findings are mentioned to again highlight how women's level and status of employment can interact with depression.

Employment is a factor that does interact with levels of depression. While results of the aforementioned studies highlight different aspects of interaction, there is still room for further and more specific investigation. Three areas which appear salient are the division of Hispanic women by specific ethnic groups, the division of these women by the type of job they employ (either professional or nonprofessional), and the study of the influence of job related factors as well gender related factors.

Social Support and Depression

Social support is typically defined as the sense of having someone who cares about you, of being loved and esteemed, and of having others to call on in times of personal crisis (Mirowsky & Ross, 1987). Defined in this way, social support and support networks are presumed to provide resources to successfully deal with stress and its psychological consequences (Salgado de Snyder & Padilla, 1987). As such, the effects of social support and support networks seems relevant in its probable impact on depression.

Social support among Hispanics has traditionally been analyzed from an extended family perspective (Salgado de Snyder & Padilla, 1987). Mexican American families have consistently reported that the family is a major

source of identity, self-worth, and social support, but little has been done to study social support or support networks among Hispanic women. In light of the changing Hispanic family, this seems to be an appropriate area of study.

Salgado de Snyder and Padilla (1987) reported on a study conducted with Mexican women (N=140) who immigrated to the U.S. after age fourteen. Immigrant women were the focus of this research as they were considered to be particularly at risk. Because of the unfamiliarity of a new culture and possible language limitations, immigrant women were seen as lacking access to, and utilization of, adequate interpersonal coping resources, including a social support network. Social support was conceptualized as an external mediator which acts as a buffer to stress.

The women resided in the city of Los Angeles, California and participated in a telephone survey that addressed the stress-mediator-outcome paradigm and the relationship between social support, acculturative stress, and depressive symptomatology (this survey is covered more fully in the section on Acculturation/Immigration). The Spanish CES-D was administered to assess levels of depressive symptomatology and the Latin American Stress Inventory (LAS-I) was used to measure acculturative stress. Respondants were all married and had a mean age of twenty-six years.

This study analyzed access to, rather than effectiveness of, the social support network. Respondants were asked whether they had access to someone they could go to for emotional, economic, or informational support excluding their spouses. They were also asked to provide characteristics of

the people in their social support network. Percentages were computed for this information.

Most women stated that they had someone who provided emotional support through a relationship that allowed them to share intimate communication (66.4%) and which provided positive encouragement (77.1%). For most women, this support came from another woman (93.5%). These women were identified primarily as a female friend, then as a mother, then as a sister with whom they had contact at least once a week. Economic support could be found by 90.7% of the women, while informational support could be found by 87.9%.

Salgado de Snyder and Padilla (1987) calculated a correlational matrix to determine the relationship between levels of acculturative stress or depressive symptomatology and access to sources of social support. No relationship was found. The researchers suggested that these results may have been due to the effectiveness of spousal support which had been unaccounted for up to this point. When spousal support was assessed for effectiveness, it negatively correlated with depressive symptomatology (r-0.28; $p<.01$). The higher the perceived levels of spousal support, the lower the level of depressive symptomatology.

In conclusion, mere access to support as examined in the study was not found to be related to either stress or depressive symptomatology. The effectiveness of supporters, rather than mere access, served as more of a buffer to stress. In addition, the higher the level of spousal support, the less necessary was social support.

Vega, Kolody, and Valle (1986) also examined the role of confidant support in mediating stress among Mexican immigrant women (N=1,915) of

predominantly low socioeconomic status. The support of confidants was considered to be like social support in being related to well-being and health. Data was drawn from a cross-sectional survey in San Diego County, California, which was intended to be the first wave of a longitudinal preventive intervention study on depression among low income Mexican American women of middle age.

It was hypothesized that confidant support would be important in reducing the stress associated with disrupted marital status. Immigrant women were expected to have fewer personal coping resources due to their social isolation, lack of educational attainment, and cultural and language barriers (Vega, Kolody, & Valle, 1986) and thus be at high risk for depressive symptoms. Confidant support was expected to act as a buffer to the impact of stressors, while also directly enhancing a woman's need for affiliation, belonging, respect, social recognition, affection, and nurturance.

Women in the sample were between thirty five and fifty years of age. Face to face interviews were conducted with all subjects and the CES-D was used to measure depressive symptoms. Vega, Kolody, and Valle (1986) initially tested the association between marital status and the presence or absence of a confidant. The results were significant ($p<.001$) with married women (73.1%) reporting having a confidant, followed by 63.0% of the never-married, 58.3% of the separated or divorced, and 50.0% of the widowed. The researchers were not able to determine the source of this confidant support.

Demographic variables that may be associated or correlated with depression or confidant relationships were tested for nonlinear association with depressive symptoms using a one-way ANOVA. The variables tested

were marital status (separated/divorced, widowed, and never married), number of children under 18 living in the household, number of adults other than spouse living in the household, employment status, proportion of life lived in the U.S., family income, and years of education. None of these variables yielded a statistically significant nonlinear trend.

Multiple regression analyses were conducted to test the effects of a confidant relationship in mediating stress associated with different marital statuses, with depressive symptoms as the dependent variable, while controlling for a set of correlates (Vega, Kolody, & Valle, 1986). When confidant support was introduced as a variable, it accounted for variance results, having an important impact upon depressive symptoms. The presence of a confidant relationship had the single strongest reducing effect upon depression scores ($p<.001$). In regard to confidant relationships and marital status, when married women were compared to widowed, the disrupted marital status was associated with higher levels of depression.

Vega, Kolody, and Valle (1986) concluded that confidant relationship is of importance among low-income immigrant women and is highly correlated with general well-being. However, no compelling evidence was found that confidant support had any varying effects among persons in differing marital statuses.

Social support, support networks, and confidant support appear to be negatively correlated with depressive symptoms, particularly with immigrant women. Although they were the focus of study because of their perceived risk to depression, the study of other Hispanic populations would be beneficial. It is not just access to social support that is important, but the effectiveness of such support in mediating the effects of stress.

Immigration/Acculturation and Depression

Migration to this country has played a significant role in the history of Hispanics, with an ever increasing flow of both legal and illegal immigrants arriving in the U. S. daily. The process of migration is a unique experience that some Hispanic women experience and thus warrants special attention in its relation to depression. Rogler, Gurak, and Santana Cooney (1987) see the migration experience as having three potential sources of strain and psychological distress. These three areas relate to: insertion into the host society's socioeconomic system; acculturative processes in relation to the host society's culture; and changes in the interpersonal bonds entangling the migrant's life.

Espin (1987) states that the process of migration implies a certain degree of culture shock. Perceived or real freedom to migrate, relative ease or difficulty of this process, sense of responsibility for those left behind, and conditions in both the home and host countries, are seen as factors that interact with culture shock for individuals.

Immigration is implicitly tied to acculturation. Acculturation is defined as the process by which an immigrant's attitudes and behaviors change toward those of the dominant cultural group as a result of exposure to the new cultural system (Amaro & Russo, 1987). However, Rogler et al. (1987) point out that acculturation does not imply the abandonment of one's home culture. Rather, there may be a certain level of biculturalism present.

Research in this section examines depressive symptomatology as it relates to immigrant women. Two of the following studies also look at levels of acculturative stress and how it relates to this population.

Salgado de Snyder (1987a) surveyed married Mexican immigrant women (N=140) to explore and describe levels of acculturative stress and depressive symptomatology. Reasons for migrating, situations associated with the migration decision, plans for the future, and choice in the decision to migrate were also explored. Finally, the identification of specific stressful situations as they related to migration, the acculturation process, and depressive symptoms were also studied.

Subjects were obtained through a three stage process. Initial selection was made from 1985 marriage licenses of the County of Los Angeles based on gender (being female), Spanish surname, and birthplace in Mexico after 1950. The second stage further selected those whose parents were born in Mexico and bore a Spanish surname. The subject had to be in her first marriage. The final sampling was conducted when the first contact was made. Women who had immigrated at the age of fourteen or older were asked to participate in the survey. This sampling procedure was used to ensure respondants were from the intended target group.

Respondants were between the ages of seventeen and forty-nine (μ=25.7). The average length of stay in the U.S. was 7.5 years. Twenty percent reported speaking only Spanish, while 21.4% considered themselves bilingual. The entire survey was conducted over the phone, in Spanish, and consisted of a questionnaire, the CES-D, and an acculturative stress scale. This last scale was composed of 12 items derived from the 172-item Latin American Stress-Inventory (LAS-I) (Cronbach alpha coefficient of .65).

Results showed that CES-D scores were high for the entire sample, with a mean score of 14.5. Actually, 64% of the women reached or exceeded the CES-D cut-off point of 16 (indicating caseness). These results seem to

indicate that married Mexican immigrant women may be at risk for the development of depression. Correlations were calculated (author did not specify how) and a significant correlation was found between acculturative stress and depressive symptomatology (r=.40, p<.001). Acculturative stress by itself actually accounted for 16% of the variance in predicting depressive symptomatology (r=.16; F[1,138]=25.8, p<.001).

Variables were analyzed to identify relationships with high levels of depressive symptoms. A negative relationship was found between the CES-D and language proficiency, so that a lack of verbal fluency was correlated with higher levels of depressive symptoms (r=-.33, p<.001).

T-Test analyses were conducted on CES-D scores and respondants who had experienced stressful situations in the last three months and those who had not. Perceived discrimination (t [136] = -3.7, p<.001), a sense of inability to perform one's role as a good Mexican married woman in an unfamiliar environment (t [122] = - 2.7, p<.01), and concern about starting a family in this country (t [117] = - 2.5, p<.05) were identified as placing this group of immigrant women (all had scores of 6 or higher) at risk for the development of depressive disorders. Respondants were placed at risk for psychological conflict by thinking about the welfare of family members and friends left behind in Mexico (t [47] = -2.6, p<.05) and not having sufficient money to pay debts (t [28] = -2.2, p<.05).

Salgado de Snyder (1987a) divided the sample into two groups: those women who reported they themselves made the final decision to migrate (n=77) and those who did not take an active role in the final decision making process (n=63). Analyses found no significant differences in levels of acculturative stress between these two groups. Significant differences were

found with CES-D scores. Women who migrated due to someone else's decision had higher CES-D scores ($p<.05$).

Salgado de Snyder (1987a) concluded that while most women in this sample expressed their desire to remain in the U.S., high levels of acculturative stress and depressive symptomatology were found. Several factors related to the immigration process, such as language proficiency, were also found to correlate to high levels of depressive symptoms.

Vega, Kolody, Valle et al. (1986) also examined depressive symptomatology among Mexican immigrant women ($N=1825$) from a survey conducted in San Diego County, California (described in more detail in the section on social support). The CES-D was used to measure levels of depressive symptoms. Most of this sample were married (72.8%) and had been living in the U.S. for some time. Only 13.9% had been in this country for five years or less. Most respondants also had low levels of education.

Results indicate the mean CES-D score for the sample was 15.71. Using the 16 point cut-off for caseness, 41.53% of immigrant women reached or exceeded this limit. Several variables were examined using a one-way ANOVA in relation to depression scores. These variables were age, education, years in U.S., employment status, income, and marital status. A statistically significant ($p<.001$) negative linear association was found between level of education and depression. Lower levels of education was associated with higher depression scores. A similar association was also found between income and depression.

Immigrant women in disrupted marital statuses were found to have significantly ($p<.001$) higher symptom levels of depression than the married or never married. Years in the U.S. was also significantly ($p<.01$) associated

with depression. Subjects who reported five or fewer years of residence had the highest mean scores indicating that a higher level of stress may be experienced by the more recent migrant. Neither age nor employment status demonstrated any association with depressive symptoms.

In examining these results, it should be remembered that the subjects depict economically poor, minimally acculturated women, who may have low levels of education and may be socially isolated. As such they represent a unique group of Hispanic women. Vega, Kolody, Valle et al. (1986) suggested several reasons for the findings of this study. They proposed that the high levels of depressive symptoms in this sample were the result of a combination of cultural and socioeconomic factors. Family structure and normative expectations were viewed as unstable and conflicted for these women, resulting in increased stress, economic marginality, less social support, and a narrow range of coping alternatives.

Salgado de Snyder (1987b) also examined the relationships of ethnic loyalty and social support to acculturative stress and depressive symptomatology. Using data collected from the study on immigrant Mexican women presented above, the following variables were assessed: circumstances of their immigration; loyalty toward Mexican culture; self-esteem; social support networks; coping strategies; acculturative stress; depressive symptomatology; and general satisfaction. In this analysis, the sample was also divided according to who made the decision to immigrate. Those who made the final decision themselves were designated as the Voluntary group (n=77), while those whose decision was made by someone else were the Involuntary groups (n=63).

Loyalty, social support, and satisfaction were all measured through selected questionnnaire items (alpha reliability coefficients respectively: .70; .53; .66). Coping strategies were attained by asking the subject what she did to alleviate stress. The Rosenberg self-esteem scale was used for self-esteem and the Latin American Stress and Coping Inventory was used for acculturative stress. The CES-D measured depressive symptoms.

As in her previous analysis, Salgado de Snyder (1987b) examined each of the variables for the Voluntary and Involuntary groups separately. The relationship between self-esteem, satisfaction, social support, and loyalty (these were considered the independent variables) were studied by calculating an intercorrelation matrix. Among the Voluntary group, self-esteem had a significant correlation with social support ($r=.2645$; $p<.05$), and satisfaction ($r=.2754$; $p<.05$). Loyalty was negatively correlated with all the scales, but significant only with satisfaction ($r-.2829$; $p<.05$). Among the Involuntary group, the strongest positive correlation was between social support and satisfaction ($r=.3373$; $p<.01$), while loyalty was again negatively correlated with self-esteem ($r=-.2882$; $p<.05$), social suppport ($r=-.3590$; $p<.01$), and satisfaction ($r=-.3945$; $p<.01$).

Overall, the Mexican women showed a high level of loyalty toward their culture. Yet as the statistics indicated, higher loyalty tended to be associated with lower levels of self-esteem, social support, and satisfaction. Those who were more loyal also had higher levels of acculturative stress ($p<.05$). It would seem that maintaining loyalties increased stress, but interestingly, levels of depressive symptomatology did not differ significantly between subjects, whether they displayed high or low loyalty.

The relationship between acculturative stress and depressive symptomatology (the dependent variables), was examined with a correlation matrix. A strong correlation was found in both the Voluntary ($r=.3503$; $P<.01$) and Involuntary ($r=.4286$; $p<.001$) groups. Thus, levels of acculturative stress and depressive symptomatology appeared to be related. When a multiple regression analysis was done, within the Voluntary group, acculturative stress significantly ($p<.005$) accounted for 12% of the variance as a predictor of depressive symptomatology. Within the Involuntary group, the acculturative variable also significantly ($p<.001$) accounted for most of the variance.

The only significant difference Salgado de Synder (1987b) found among the Voluntary and Involuntary groups was on levels of depressive symptomatology, where Involuntary subjects scored higher ($p<.05$). However, both groups together did reflect high scores on the CES-D ($\mu=14.5$).

The one demographic variable that yielded a significant relationship to depressive symptoms was occupation. Women who were full time housewives had significanlty higher scores on the CES-D ($p<.05$), than those who were employed outside of the home. This may have been due to the higher levels of social support ($p<.05$) reported by women who worked out of the home.

Salgado de Snyder (1987b) concluded that the immigration experience was a major stressful life event that may trigger depressive symptomatology as evidenced by the overall high depression scores. Depression itself appeared to be related to acculturative stress but not to any of the other variables examined. However, acculturative stress was related to the other variables, particularly levels of loyalty. Thus, levels of depression are

indirectly related to each of the variables, although exactly how is unclear. It was also suggested that the women of the Voluntary group are evidence of women who do not conform to the passive-dependent image of the Mexican women. Rather, these women may represent a more independent generation of immigrant women.

Espin (1987) suggested some implications for immigrant women who enter psychotherapy. A woman's reasons for migrating need to be considered, as well as possible role conflicts generated by immigration. In addition, it is likely that women may need to grieve losses experienced in the process of migration. It is also important to distinguish the negative effects of immigration from individual psychopathology. This is an area where research results on depression and immigration/acculturation can be useful.

It seems fairly clear that the process of immigration carries many stressors with it that do influence levels of depression among Hispanic women. The adjustment to a new culture and language represent added stressors. The lack of opportunity and limitations faced by many of these women only add to the overwhelming experience of immigration.

Conclusions

While it remains clear that depression is of significant concern for women in general, it is also clear that depression and depressive symptomatology is a relevant issue for Hispanic women today. This study has attempted to look at some of the major factors or variables that seem to be related to levels of depression within a female Hispanic population. There were several patterns and significant relationships among variables found in the literature. For example, societal and environmental factors play

a siginificant role in affecting levels of depression. Thus employment, education, support, and marital status, as they relate to the Hispanic woman, will affect levels of depression. That these factors are related seems clear. How or why is still unclear and remains to be determined by future research.

Research on Hispanic women and depression is helpful in several ways. Although the prevalence of depression among subgroups of Hispanic women varies, the high prevalence of depression among Hispanic women in general seems indisputable. With such prevalence, research can provide valuable information, specifically in two areas. First, research on depression can serve to highlight areas of prevention. As more is understood about the factors that influence depressive symptoms, the circumstances surrounding the development of these symptoms can be more clearly delineated. This information will also serve in the formation of prevention strategies. The need for preventive information seems obvious given the high levels of depressive symptomatology.

Second, a greater understanding of depression and its function among Hispanic women can positively affect treatment considerations and the provision of services. For instance, the effectiveness of treatment methods may depend on whether a woman has a depressive disorder or depressive symptoms. The presence of depressive symptoms may imply the need to address sociological factors, providing support and access to job and education opportunities. Issues to be addressed regarding the provision of services are the management of services and their access and use by Hispanic women. Depending on her socio-economic status, a Hispanic woman may seek either traditional psychological services or help from a friend or priest.

Many questions still remain regarding Hispanics and depression. Several areas are suggested as the focus of future research. First of all, most of the existing research is among the poor and lower socio-economic status groups. The middle class, upper class, and professional Hispanic women are a group of women who have only recently been studied. Although they may represent a smaller group, they nonetheless represent a subgroup of Hispanic women and would likely add valuable information to broaden the understanding and definition of being Hispanic.

Second, it is apparent that there are distinct differences among the ethnic subgroups of Hispanics. This needs to be a factor in future research. For example, research results seem to indicate that Puerto Rican women consistantly have higher levels of depression than women of other Hispanic subgroups. The reasons for this are unclear, but understanding why would provide valuable information in developing prevention strategies and providing services specifically for Puerto Rican women.

Two other groups who are often overlooked in the research on Hispanic women are the more recent Cuban boat immigrants (Marielitos) and the undocumented workers or illegals. Although there are obvious problems implicit in identifying the illegals, they increasingly represent a large group of women who are becoming an established segment of U.S. society. This is especially true in the Southwestern states.

Third, there are other factors that could be addressed more specifically to further explore the nuances of the relationship between Hispanic culture and depression. For example, issues of self-perception, sex-roles, and derived identity are greatly influenced by culture. While many traditional values still persist, the reality is that many women are also changing their roles,

either by choice (a career professional women) or need (a single, female-headed household). Understanding the importance different factors carry for Hispanic women will increase awareness of how they affect depression.

Bernstein (1991-1992) suggests that the recently developed theoretical model of centrality may explain why some women are more vulnerable to distress and depression. In the model of centrality, individuals attach importance to certain "central issues," depending on their gender and ethnicity. If these central issues are threatened in the face of life experience or stressors, there is a greater likelihood of experiencing harm or loss. For instance, a Hispanic woman who considers a homemaking role as central to who she is as a Hispanic woman, will struggle more with having to work outside the home, than a Hispanic woman who views her professional development as important. Bernstein states that the theory of centrality seems to apply especially to those who have a cognitive vulnerability for depression. Furthermore, it may be these "central issues" that explain differential rates of depression among gender and ethnic groups.

While the model Bernsteins suggests may or may not be helpful to future research, its presence highlights the need for comprehensive theoretical models to understand depression in a cultural context. While some models are presented throughout the research (i.e., cognitive model of depression), the lack of a comprehensive model that caters to Hispanic women, limits the advances of Hispanic research and comparative ability among already existing research.

It seems that research among Hispanic women is playing "catch up" with the abundance of research on Anglo women. As Munoz (1987) suggests, the Hispanic perspective should be an integral part of any new area

of research from the beginning, rather than an appendage or afterthought. Hopefully, future research will not only build off the already existing findings, but use these findings to further the understanding not only of women, but of Hispanic women in issues of mental health.

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VITA

NAME:

Bettina M. Delgado

EDUCATION:

Rosemead School of Psychology Clinical Psychology	Psy.D.	(Cand.)
Rosemead School of Psychology Clinical Psychology	M.A.	1989
Wheaton College Psychology/Theological Studies	B.A.	1987

INTERNSHIP:

Kaiser Permanente, Department of Psychiatry Downey, CA	1992	- 1993

PRACTICA:

Biola Counseling Center Outpatient Program	1989	- 1991
Camarillo State Hospital Inpatient Program		1989
Garvey School District School Practicum	1988	- 1989

EMPLOYMENT:

University Counseling Center California State University, Long Beach Staff Psychologist	1993	- present
Biola Counseling Center Caseworker/Counselor	1991	- 1992